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CURRENT SERIAL RECORDS

CHEMICALLY MODIFIED OIL PRODUCTS

FOR

INDUSTRIAL USES

A List of Publications and Patents, 1962-1969
Northern Regional Research Laboratory

Agricultural Research Service

UNITED STATES DEPARTMENT OF AGRICULTURE

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This list of publications and patents represents 8 years of research work. It supersedes the previous list issued as ARS 71-27, Suppl. 1-7. References are arranged chronologically except when they form a series of papers under the same general title or when the subject matter is closely related. All authors cited are members of the Northern Utilization Research and Development Division, Peoria, Ill.; exceptions are noted in footnotes or affiliation listed after author(s)' name.

Other lists of publications are available: Compositional Studies on Oilseeds, Oils, and Meals, ARS 71-39; Engineering Studies on Processing of Oils and Meals, ARS 71-40; Edible Soybean Oil and Related Studies, ARS 71-41; Edible Soybean Protein and Related Studies, ARS 71-42; Reviews and General Articles on Oilseed Crops Research, ARS 71-44; Miscellaneous Studies Related to Soybean and Other Oilseed Crops, ARS 71-45.

Northern Utilization Research and Development Division
Agricultural Research Service
United States Department of Agriculture
1815 North University Street
Peoria, Ill. 61604

CHEMICALLY MODIFIED OIL PRODUCTS FOR INDUSTRIAL USES

1962-1969

Publications

[Publications marked (*) are not available for distribution. When requesting specific reprints, please order by number. Use your zip code.]

Unsaturated Fatty Acids and Isomers

1369 PURIFICATION OF ERUCIC ACID BY LOW-TEMPERATURE CRYSTALLIZATION
J. W. Hagemann, K. L. Mikolajczak, and I. A. Wolff
J. Amer. Oil Chem. Soc. 39(4): 196-197. April 1962

1384 PREPARATION AND PURITY OF LINOLEIC ACID FROM COMMERCIAL CORN, COTTONSEED, AND SAFFLOWER OILS
B. Sreenivasan, J. B. Brown,[1] E. P. Jones, V. L. Davison, and Janina Nowakowska
J. Amer. Oil Chem. Soc. 39(3): 255-259. May 1962

1528 COST OF PRODUCING LINOLEIC ACID FROM SAFFLOWER OIL
V. E. Sohns, R. E. Beal, and E. L. Griffin, Jr.
J. Amer. Oil Chem. Soc. 40(5): 169-172. May 1963

23-F * FRACTIONATION OF SOYBEAN AND LINSEED OIL FATTY ACIDS BY CRYSTALLIZATION
Erkki Uksila
University of Helsinki, Helsinki, Finland[2]
Ann. Acad. Sci. Fenn. Ser. A2(119): 74 pp. March 1963

95-F FRACTIONATION OF LINSEED OIL FATTY ACIDS BY CRYSTALLIZATION
Erkki Uksila, Paavo Roine, Eeva-Liisa Syvaoja, and Armi Alivaara
University of Helsinki, Helsinki, Finland[2]
Acta Chem. Scand. 17(10): 2622-2627. 1963

183-F * CRYSTALLIZATION OF LINSEED OIL FATTY ACIDS FROM ACETONITRILE
Erkki Uksila and Inkeri Lehtinen
University of Helsinki, Helsinki, Finland[2]
Acta Chem. Scand. 20(6): 1645-1650. 1966

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[1]The Ohio State University, Columbus.

[2]Report of research work supported with funds provided by U.S. Department of Agriculture under the authority of U.S. Public Law 480, 83d Congress, and sponsored by the Northern Utilization Research and Development Division.

184-F * SEPARATION OF UNSATURATED FATTY ACIDS OF SOYBEAN AND LINSEED OILS BY CRYSTALLIZATION AND SUBSEQUENT LIQUID-LIQUID EXTRACTION
Erkki Uksila, Matti Varesmaa, and Inkeri Lehtinen
University of Helsinki, Finland[2]
Acta Chem. Scand. 20(6): 1651-1657. 1966

185-F * FRACTIONATION OF SOYBEAN OIL FATTY ACIDS AS FREE ACIDS AND "ACID" SODIUM SOAPS BY CRYSTALLIZATION FROM METHANOL AND ACETONE
Erkki Uksila, Inkeri Lehtinen, and Paavo Roine
University of Helsinki, Finland[2]
Suom. Kemistilehti B 39(10): 185-189. 1966

186-F * FACTORS CONTRIBUTING TO THE CRYSTALLIZATION OF FATTY ACIDS AND "ACID" SOAPS OF LINSEED OIL
Erkki Uksila, Inkeri Lehtinen, and Paavo Roine
University of Helsinki, Finland[2]
Suom. Kemistilehti B 39(10): 190-192. 1966

1695 PREPARATION OF 9,15-OCTADECADIENOATE ISOMERS
R. O. Butterfield, C. R. Scholfield, and H. J. Dutton
J. Amer. Oil Chem. Soc. 41(6): 397-400. June 1964

1728 A CONVENIENT LABORATORY METHOD FOR PREPARING *TRANS,TRANS*-9,11-OCTADECADIENOIC ACID
Wilma J. Schneider, L. E. Gast, and H. M. Teeter
J. Amer. Oil Chem. Soc. 41(9): 605-606. September 1964

47-F * REACTIONS OF FATTY ACIDS AND THEIR DERIVATIVES IN ALKALIES
M. F. Ansell and B. C. L. Weedon
London University, London, England[2]
Ind. Chem. 40(2): 70-73. February 1964

1809 ALKALINE ISOMERIZATION OF METHYL CREPENYNATE
K. L. Mikolajczak, M. O. Bagby, and I. A. Wolff
J. Amer. Oil Chem. Soc. 42(3): 243-245. March 1965

1883 PROTOTROPIC REARRANGEMENT OF A 1,4-ENYNE. PRODUCTS AND MECHANISM
K. L. Mikolajczak, M. O. Bagby, R. B. Bates, and I. A. Wolff
J. Org. Chem. 30(9): 2983-2988. September 1965

143-F SOME REACTIONS OF UNSATURATED FATTY ACIDS AND THEIR DERIVATIVES IN MOLTEN ALKALIES
M. F. Ansell, A. N. Radziwill, D. J. Redshaw, I. S. Shepherd, D. Wallace, and B. C. L. Weedon
Queen Mary College, London, England[2]
J. Agr. Food Chem. 13(5): 399-401. September-October 1965

1998 ISOMERIZATION OF UNSATURATED FATTY ESTERS BY IRON PENTACARBONYL. PREPARATION OF IRON TRICARBONYL COMPLEXES OF POLYUNSATURATED FATS
E. N. Frankel, E. A. Emken, and V. L. Davison
J. Amer. Oil Chem. Soc. 43(5): 307-311. May 1966

2122 CONJUGATION OF SOYBEAN OIL BY DECOMPOSITION OF ITS IRON TRICARBONYL COMPLEX WITH CARBON MONOXIDE
E. N. Frankel and S. Metlin[3]
J. Amer. Oil Chem. Soc. 44(1): 37-39. January 1967

2221 SEPARATION OF CONJUGATED METHYL OCTADECADIENOATE AND TRIENOATE GEOMETRIC ISOMERS BY SILVER-RESIN COLUMN AND PREPARATIVE GAS-LIQUID CHROMATOGRAPHY
E. A. Emken, C. R. Scholfield, V. L. Davison, and E. N. Frankel
J. Amer. Oil Chem. Soc. 44(7): 373-375. July 1967

2402 HIGH-YIELD PREPARATION OF METHYL STEAROLATE
R. O. Butterfield and H. J. Dutton
J. Amer. Oil Chem. Soc. 45(8): 635-638. August 1968

Cyclic Fatty Acids and Derivatives

1352 ALKYD RESINS MODIFIED WITH CYCLIC FATTY ACIDS. A PRELIMINARY EVALUATION
W. R. Miller, H. M. Teeter, A. W. Schwab, and J. C. Cowan
J. Amer. Oil Chem. Soc. 39(3): 173-176. March 1962

1450 NITROGENOUS DERIVATIVES OF CYCLIC FATTY ACIDS
W. J. DeJarlais and H. M. Teeter
J. Amer. Oil Chem. Soc. 39(10): 421-424. October 1962

1451 REACTION OF ETHYLENE WITH C_{18} MONOCARBOXYLIC DIENOIC ACIDS
J. P. Friedrich, E. W. Bell, and R. E. Beal
J. Amer. Oil Chem. Soc. 39(9): 420. September 1962

1475 LIQUID C-18 SATURATED MONOCARBOXYLIC ACIDS--THEIR PREPARATION, CHARACTERISTICS, AND POTENTIAL USES
J. P. Friedrich and R. E. Beal
J. Amer. Oil Chem. Soc. 39(12): 528-533. December 1962

1516 CYCLIC FATTY ACID YIELDS FROM LINSEED OIL
R. A. Eisenhauer, R. E. Beal, and E. L. Griffin
J. Amer. Oil Chem. Soc. 40(4): 129-131. April 1963

1548 DETERMINATION OF CYCLIC FATTY ACIDS BY GAS-LIQUID CHROMATOGRAPHY
L. T. Black and R. A. Eisenhauer
J. Amer. Oil Chem. Soc. 40(7): 272-274. July 1963

1579 METHODS FOR IMPROVING YIELDS OF CYCLIC ACID FROM LINSEED OIL
J. P. Friedrich, J. C. Palmer, E. W. Bell, and J. C. Cowan
J. Amer. Oil Chem. Soc. 40(10): 584-587. October 1963

---

[3]Pittsburgh Coal Research Center, Pittsburgh, Pa.

1628 CYCLIC FATTY ACIDS FROM LINOLENIC ACID
R. A. Eisenhauer, R. E. Beal, and E. L. Griffin
J. Amer. Oil Chem. Soc. 41(1): 60-63. January 1964

1738 CONTINUOUS PRODUCTION OF CYCLIC FATTY ACIDS
R. E. Beal, R. A. Eisenhauer, and E. L. Griffin, Jr.
J. Amer. Oil Chem. Soc. 41(10): 683-685. October 1964

1859 POTENTIAL SYNTHETIC LUBRICANTS: ESTERS OF C_{18}-SATURATED CYCLIC ACIDS
J. P. Friedrich, E. W. Bell, and L. E. Gast
J. Amer. Oil Chem. Soc. 42(7): 643-645. July 1965

2142 POTENTIAL SYNTHETIC LUBRICANTS: DIOL ESTER OF C_{18}-SATURATED CYCLIC ACIDS
J. P. Friedrich and L. E. Gast
J. Amer. Oil Chem. Soc. 44(2): 110-112. February 1967

2180 C_{18}-SATURATED CYCLIC ACIDS FROM LINSEED OIL: A STRUCTURAL STUDY
J. P. Friedrich
J. Amer. Oil Chem. Soc. 44(4): 244-248. April 1967

1907 PREPARATION OF ALCOHOLS FROM CYCLIC FATTY ACIDS
E. W. Bell, J. P. Friedrich, L. E. Gast, and J. C. Cowan
J. Amer. Oil Chem. Soc. 42(10): 867-878. October 1965

1932 PRODUCTION OF CYCLIC FATTY ACIDS: WATER AS THE REACTION SOLVENT
R. E. Beal, R. A. Eisenhauer, and V. E. Sohns
J. Amer. Oil Chem. Soc. 42(12): 1115-1119. December 1965

2052 CYCLIC FATTY ACIDS: REMOVAL OF AROMATIC ACIDS FORMED DURING HYDROGENATION
R. A. Eisenhauer, R. E. Beal, L. T. Black, and J. P. Friedrich
J. Amer. Oil Chem. Soc. 43(8): 515-518. August 1966

2401 CYCLIC FATTY ACIDS: SEPARATION FROM STRAIGHT-CHAIN FATTY ACIDS BY UREA ADDUCTING
R. A. Eisenhauer and R. E. Beal
J. Amer. Oil Chem. Soc. 45(8): 619-621. August 1968

2406 FATTY ACIDS, PART 18. AN ADDITION REACTION OF METHYL LINOLEATE ACCOMPANIED BY CYCLISATION
F. D. Gunstone[4] and R. G. Powell
Chem. Phys. Lipids 2(2): 203-212. June 1968

Aldehydes, Aldehyde Oils, and Derivatives

1370 PREPARATION OF FOAMS FROM VEGETABLE OIL DERIVATIVES
C. M. Thierfelder, H. M. Teeter, and J. C. Cowan
J. Amer. Oil Chem. Soc. 39(4): 215-217. April 1962

---

[4]The University of St. Andrews, Fife, Scotland.

1446 SELECTIVE HYDROGENATION OF METHYL OLEATE OZONOLYSIS PRODUCTS BY PALLADIUM IN PYRIDINE-METHANOL SOLVENT
E. H. Pryde, D. E. Anders, H. M. Teeter, and J. C. Cowan
J. Org. Chem. 27(9): 3055-3059. September 1962

1471 ALDEHYDIC MATERIALS BY THE OZONIZATION OF VEGETABLE OILS
E. H. Pryde and J. C. Cowan
J. Amer. Oil Chem. Soc. 39(11): 496-500. November 1962

1576 UNSATURATED ALDEHYDE OILS BY THE PARTIAL OZONIZATION OF SOYBEAN OIL
E. H. Pryde, D. E. Anders, H. M. Teeter, and J. C. Cowan
J. Amer. Oil Chem. Soc. 40(9): 497-499. September 1963

1610 METHYL AZELAALDEHYDATE PURIFICATION VIA THE BISULFITE COMPOUND
W. R. Miller, D. J. Moore, and J. G. Fullington
J. Amer. Oil Chem. Soc. 40(12): 720-721. December 1963

1700 TRANSACETALATION OF METHYL 9,9-DIMETHOXYNONANOATE
E. H. Pryde, D. J. Moore, H. M. Teeter, and J. C. Cowan
J. Org. Chem. 29(7): 2083-2085. July 1964

1767 SELECTIVE ALCOHOLYSIS PRODUCTS OF METHYL 9,9-DIMETHOXYNONANOATE
E. H. Pryde, D. J. Moore, H. M. Teeter, and J. C. Cowan
J. Chem. Eng. Data 10(1): 62-64. January 1965

1770 AZELAALDEHYDIC ACID-GLYCEROL COMPOUNDS: POTENTIAL POLYMER INTERMEDIATES
W. R. Miller, E. H. Pryde, and J. C. Cowan
J. Polym. Sci., Part B, 3(2): 131-133. February 1965

1774 VINYL ESTERS OF SOME ALDEHYDIC ACID ACETALS
E. H. Pryde, D. J. Moore, and J. C. Cowan
J. Amer. Oil Chem. Soc. 42(1): 16-19. January 1965

1775 PREPARATION OF MALONALDEHYDE ACETALS BY OZONOLYSIS OF POLYUNSATURATED FATTY ESTERS
P. Fitton, E. H. Pryde, and J. C. Cowan
J. Amer. Oil Chem. Soc. 42(1): 14-16. January 1965

1808 OMEGA-FORMYLALKANOATES BY OZONIZATION OF UNSATURATED FATTY ESTERS
D. E. Anders, E. H. Pryde, and J. C. Cowan
J. Amer. Oil Chem. Soc. 42(3): 236-243. March 1965

1842 REACTIONS OF METHOXY HYDROPEROXIDES DERIVED FROM METHYL OLEATE CATALYTIC HYDROXYGENATION
E. H. Pryde, R. A. Awl, and J. C. Cowan
J. Amer. Oil Chem. Soc. 42(6): 549-553. June 1965

1903 A COMPARISON OF PARTICIPATING SOLVENTS DURING OZONIZATION
D. J. Moore, E. H. Pryde, and J. C. Cowan
J. Amer. Oil Chem. Soc. 42(10): 894-898. October 1965

1906 AMINES FROM ALDEHYDES DERIVED FROM THE OZONIZATION OF SOYBEAN ESTERS
D. E. Anders, E. H. Pryde, and J. C. Cowan
J. Amer. Oil Chem. Soc. 42(10): 824-827. October 1965

2466 SECONDARY AND TERTIARY AMINES DERIVED FROM PELARGONALDEHYDE AND METHYL AZELAALDEHYDATE
E. H. Pryde, D. E. Anders, and J. C. Cowan
J. Amer. Oil Chem. Soc. 46(2): 67-69. February 1969

1925 INSTRUMENTAL STUDY OF ALDEHYDE OILS AND THEIR REACTION WITH SELECTED AMINES
R. E. Sharpe,[5] D. A. Berry,[5] E. H. Pryde, and J. C. Cowan
J. Amer. Oil Chem. Soc. 42(10): 835-838. October 1965

1946 REDUCTION OF METHYL OLEATE OZONOLYSIS PRODUCTS TO ALDEHYDES WITH ACTIVATED ZINC
R. A. Awl and E. H. Pryde
J. Amer. Oil Chem. Soc. 43(1): 35-37. January 1966

1980 REMOVAL OF METAL CATALYSTS FROM ALDEHYDE OILS
R. E. Beal
J. Amer. Oil Chem. Soc. 43(3): 122-124. March 1966

1997 INFRARED SPECTROPHOTOMETRIC PROCEDURE FOR DETERMINING AZELAALDEHYDIC ACID DERIVATIVES
D. E. Anders and E. H. Pryde
J. Amer. Oil Chem. Soc. 43(5): 305-306. May 1966

2120 ACETALIZATION OF ALDEHYDE OILS BY CATALYSIS WITH CATION-EXCHANGE RESINS
R. E. Beal, D. E. Anders, and L. T. Black
J. Amer. Oil Chem. Soc. 44(1): 55-58. January 1967

2153 REACTIONS OF ALDEHYDE OILS AND METHYL AZELAALDEHYDATE WITH POLYOLS
R. E. Sharpe,[5] D. A. Berry,[5] E. H. Pryde, and J. C. Cowan
J. Amer. Oil Chem. Soc. 44(3): 167-170. March 1967

2195 DETERMINATION OF UNSATURATION IN OILS IN THE PRESENCE OF SATURATED ALDEHYDES
L. T. Black and R. E. Beal
Lipids 2(3): 280-282. May 1967

2339 LABORATORY OPTIMIZATION OF PROCESS VARIABLES IN REDUCTIVE OZONOLYSIS OF METHYL SOYATE
P. E. Throckmorton,[6] L. I. Hansen,[6] R. C. Christenson,[6] and E. H. Pryde
J. Amer. Oil Chem. Soc. 45(2): 59-62. February 1968

---

[5]Battelle Memorial Institute, Columbus, Ohio.

[6]Ashland Chemicals, Minneapolis, Minn.

2383 IMPROVED SYNTHESIS OF 1,1,1-TRIMETHYLOLALKANES FROM HEXANAL AND NONANAL
D. J. Moore and E. H. Pryde
J. Amer. Oil Chem. Soc. 45(7): 517-519. July 1968

2445 HYDROLYTIC, REDUCTIVE AND PYROLYTIC DECOMPOSITION OF SELECTED OZONOLYSIS PRODUCTS. WATER AS AN OZONIZATION MEDIUM
E. H. Pryde, D. J. Moore, and J. C. Cowan
J. Amer. Oil Chem. Soc. 45(12): 888-894. December 1968

2474 HYDROFORMYLATION OF UNSATURATED FATTY ESTERS
E. N. Frankel, S. Metlin,[3] W. K. Rohwedder, and I. Wender[3]
J. Amer. Oil Chem. Soc. 46(3): 133-138. March 1969

2478 REACTIONS OF AZELAALDEHYDIC ESTERS
E. H. Pryde and J. C. Cowan
J. Amer. Oil Chem. Soc. 46(4): 213-218. April 1969

2522 SYNTHESIS OF UNSATURATED ALDEHYDES
Henry Rakoff
J. Amer. Oil Chem. Soc. 46(6): 277-279. June 1969

Polyesters, Polyamides, and Other Condensation Polymers

1408 CONDENSATION POLYMERS FROM 3,9-BIS(7-CARBOMETHOXYHEPTYL)-2,4,8,10-TETRAOXASPIRO[5.5]UNDECANE. I. POLY(ESTER-ACETALS) AND A NOVEL METHOD FOR CROSSLINKING THEM
E. H. Pryde, R. A. Awl, H. M. Teeter, and J. C. Cowan
J. Polym. Sci. 58(167): 1-11. May 1962

1392 CONDENSATION POLYMERS FROM 3,9-BIS(7-CARBOMETHOXYHEPTYL)-2,4,8,10-TETRAOXASPIRO[5.5]UNDECANE. II. POLY(AMIDE-ACETALS)
E. H. Pryde, D. J. Moore, H. M. Teeter, and J. C. Cowan
J. Polym. Sci. 58(166): 611-620. April 1962

1607 * POLY(ESTER-ACETALS)
E. H. Pryde and J. C. Cowan
"High Polymers," vol. XIII "Polyethers," Part I "Polyalkylene Oxides and Other Polyethers," ed. Norman G. Gaylord, section VIII of chap. VII, pp. 442-446. New York. 1963

1606 * POLY(AMIDE-ACETALS)
E. H. Pryde and J. C. Cowan
"High Polymers," vol. XIII "Polyethers," Part I "Polyaklylene Oxides and Other Polyethers," ed. Norman G. Gaylord, section IX of chap. VII, pp. 446-453. New York. 1963

1948 WATER-SOLUBILIZABLE OXAZOLINE POLYESTER COATING RESINS
W. J. DeJarlais, L. E. Gast, and J. C. Cowan
J. Amer. Oil Chem. Soc. 43(1): 41-45. January 1966

1956 N-2-MERCAPTOETHYL AMIDES OF FATTY ACIDS--A NEW CLASS OF DERIVATIVES
A. W. Schwab, J. A. Stolp, L. E. Gast, and J. C. Cowan
J. Amer. Oil Chem. Soc. 43(1): 30-32. January 1966

2025 POLYESTER AMIDES FROM LINSEED OIL FOR PROTECTIVE COATINGS
L. E. Gast, Wilma J. Schneider, and J. C. Cowan
J. Amer. Oil Chem. Soc. 43(6): 418-421. June 1966

2197 * HYDROLYSIS POLYMERIZATION
W. R. Miller
In The Encyclopedia of Chemistry, 2nd ed., ed. George L. Clark, p. 531. New York. 1966

2143 OXAZOLINE POLYESTER COATING RESINS
W. J. DeJarlais, L. E. Gast, and J. C. Cowan
J. Amer. Oil Chem. Soc. 44(2): 126-128. February 1967

2178 CROSSLINKING OF POLY(ESTER- AND AMIDE-ACETALS): PRELIMINARY STUDIES WITH GLASS SUBSTRATES
W. R. Miller, E. H. Pryde, C. M. Thierfelder, E. S. Mooberry, and J. C. Cowan
J. Paint Technol. 39(509): 389-393. June 1967

181-C COPOLYMERIZATIONS OF ESTERS AND GLYCERIDES OF UNSATURATED C_{18} FATTY ACIDS WITH ETHYL ACRYLATE AND ACRYLONITRILE
Frank R. Mayo and Constance Willard Gould
Stanford Research Institute, Menlo Park, Calif.[7]
J. Amer. Oil Chem. Soc. 44(3): 178-184. March 1967

2148 NYLON 1313: SYNTHESIS AND POLYMERIZATION OF MONOMERS
Joseph L. Greene, Jr.,[8] Everett L. Huffman,[8] Robert E. Burks, Jr.,[8] William C. Sheehan,[8] and I. A. Wolff
J. Polym. Sci., Part A-1, 5(2): 391-394. February 1967

2488 NYLONS FROM VEGETABLE OILS: -13, -13/13, and -6/13
R. B. Perkins,[8] J. J. Roden III,[8] A. C. Tanquary,[8] and I. A. Wolff
Mod. Plast. 46(5): 136-137, 140, 142. May 1969

2534 13-AMINOTRIDECANOIC ACID FROM ERUCIC ACID
Joseph L. Greene, Jr.,[8] Robert E. Burks, Jr.,[8] and Ivan A. Wolff
Ind. Eng. Chem. Prod. Res. Develop. 8(2): 171-176. June 1969

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[7]Report of research work done by an outside agency under contract with the U.S. Department of Agriculture and supervised by the Northern Utilization Research and Development Divison.

[8]Southern Research Institute, Birmingham, Ala.

2360 NYLON 1313
[H. J. Nieschlag, W. H. Tallent, and I. A. Wolff]
U.S. Agr. Res. Serv., CA-71-28, 5 pp. June 1968 [Processed]

2384 POLYESTERAMIDES FROM LINSEED OIL FOR PROTECTIVE COATINGS. LOW ACID-VALUE POLYMERS
L. E. Gast, Wilma J. Schneider, and J. C. Cowan
J. Amer. Oil Chem. Soc. 45(7): 534-536. July 1968

2424 A UNIQUE GAS CHROMATOGRAPHIC STATIONARY PHASE
V. L. Davison and D. J. Moore
J. Gas Chromatogr. 6(11): 540-542. November 1968

210-C STRUCTURE, PROPERTIES, AND CROSS-LINKING REACTIONS OF POLY(ESTER ACETALS)
Robert W. Lenz
University of Massachusetts, Amherst[7]
Macromolecules 2(2): 129-136. March-April 1969

Vinyl and Other Addition Polymers

1383 REACTIONS OF UNSATURATED FATTY ALCOHOLS. XIII. COPOLYMERS OF UNSATURATED FATTY VINYL ETHERS AND CYCLIC MONOMERS
E. J. Dufek, L. E. Gast, and H. M. Teeter
J. Amer. Oil Chem. Soc. 39(3): 238-241. May 1962

1386 REACTIONS OF UNSATURATED FATTY ALCOHOLS. XIV. PREPARATION AND PROPERTIES OF STYRENATED FATTY VINYL ETHER POLYMERS
Wilma J. Schneider, L. E. Gast, A. W. Schwab, and H. M. Teeter
J. Amer. Oil Chem. Soc. 39(3): 241-244. May 1962

1508 REACTIONS OF UNSATURATED FATTY ALCOHOLS. XV. STYRENATION OF FATTY VINYL ETHER POLYMERS IN TERPENE SOLVENTS
L. E. Gast, Wilma J. Schneider, H. M. Teeter, G. E. McManis, and J. C. Cowan
J. Amer. Oil Chem. Soc. 40(3): 88-91. March 1963

105-C * POLYALLOÖCIMENE. II.
C. S. Marvel and P. E. Kiener
University of Illinois, Urbana[7]
J. Polym. Sci. 61(172): 311-331. October 1962

108-C * SOME POLYMERS AND COPOLYMERS OF VINYL KETOSTEARATES
C. S. Marvel, T. K. Dykstra, and F. C. Magne[9]
University of Illinois, Urbana[7]
J. Polym. Sci. 62(174): 369-377. December 1962

---

[9]Southern Regional Research Laboratory, Agricultural Research Service, U.S. Department of Agriculture, New Orleans, La.

1616 END-USE EVALUATION OF SOME COPOLYMERS AND TERPOLYMERS OF VINYL ETHERS OF LINSEED CONJUGATED FATTY ALCOHOLS
R. H. Dent,[5] B. G. Brand,[5] H. M. Teeter, and J. C. Cowan
J. Amer. Oil Chem. Soc. 40(12): 713-716. December 1963

22-F * DETERMINAZIONE MEDIANTE IL METODO ISOPIESTICO DEL PESO MOLECOLARE DI OLI THERMOPOLIMERIZZATI E DI LORO FRAZIONI [MOLECULAR WEIGHT DETERMINATION OF HEAT-POLYMERIZED OILS AND THEIR FRACTIONS BY ISOBARIC METHODS]
E. Fedeli, A. Arpino, and P. Capella
Experiment Station for the Fats and Oils Industries, Milan, Italy[2]
Chim. Ind. (Milan) 45(2): 208-211. February 1963

34-F * UNTERSUCHUNGEN AUF DEM GEBIET DER THERMOPOLYMERISIERTEN PFLANZENÖLE. II. MITTEILUNG [STUDIES IN THE FIELD OF HEAT-POLYMERIZED VEGETABLE OILS. II.]
E. Fedeli, A. Valentini, and G. Jacini
Experiment Station for the Fats and Oils Industris, Milan, Italy[2]
Fette, Seifen, Anstrichm. 65(5): 402-410. May 1963

36-F ACCRESCIMENTO MOLECOLARE DEI TERMOPOLIMERI DELL'OLIO DI LINO. NOTA III. [MOLECULAR INCREASE OF LINSEED OIL THERMOPOLYMERS. III]
E. Fedeli, P. Capella, and A. Valentini
Experiment Station for the Fats and Oils Industries, Milan, Italy[2]
Riv. Ital. Sostanze Grasse 40(6): 321-329. June 1963

75-F RICERCHE SULLA TERMOPOLIMERIZZAZIONE DEGLI OLII VEGETALI. NOTA IV. FORMAZIONE DI ACIDI TRIMERI NELLA TERMOPOLIMERIZZAZIONE DELL'OLIO DI LINO [RESEARCH ON THE THERMOPOLYMERIZATION OF VEGETABLE OILS. IV. TRIMER ACID FORMATION IN THE THERMOPOLYMERIZATION OF LINSEED OIL]
E. Fedeli, P. Capella, A. F. Valentini, and G. Jacini
Experiment Station for the Fats and Oils Industries, Milan, Italy[2]
Riv. Ital. Sostanze Grasse 41(12): 647-651. December 1964

112-C POLYMERS DERIVED FROM UNSATURATED ESTERS OF HYDRONOPOXYALKANOLS
Toshiyuki Shono and C. S. Marvel
University of Arizona, Tucson[7]
J. Polym. Sci., Part A, 1(5): 1543-1552. May 1963

113-C PREPARATION AND POLYMERIZATION OF VINYL 12-HYDROXYSTEARATE
Toshiyuki Shono and C. S. Marvel
University of Arizona, Tucson[7]
J. Polym. Sci., Part A, 1(6): 2067-2074. June 1963

1698 * PREPARATION AND POLYMERIZATION OF VINYL ESTERS OF CYCLIC AND POLYCHLORO FATTY ACIDS
C. S. Marvel,[10] J. C. Hill,[10] J. C. Cowan, J. P. Friedrich, and J. L. O'Donnell
J. Polym. Sci., Part A, 2(6): 2523-2532. June 1964

---

[10]University of Arizona, Tucson.

1727 EVALUATION OF FATTY VINYL ETHER POLYMERS AND STYRENATED POLYMERS FOR METAL COATINGS
B. G. Brand,[5] H. O. Schoen,[5] L. E. Gast, and J. C. Cowan
J. Amer. Oil Chem. Soc. 41(9): 597-599. September 1964

115-C * COPOLYMERIZATION OF METHYL ESTERS OF UNSATURATED C_{18} FATTY ACIDS
F. R. Mayo and Constance W. Gould
Stanford Research Institute, Menlo Park, Calif.[7]
J. Amer. Oil Chem. Soc. 41(1): 25-29. January 1964

132-C * HOMOPOLYMERS AND TERPOLYMERS OF 5,7-DIMETHYL-1,6-OCTADIENE
J.M. Wilbur, Jr., and C. S. Marvel
University of Arizona, Tucson[7]
J. Polym. Sci., Part A, 2(10): 4415-4423. October 1964

136-C POLYMERS AND COPOLYMERS OF VINYL PINOLATE AND SOME REACTIONS WITH ISOCYANATES
R. A. Malzahn, J. H. Griffith, C. S. Marvel, Glen W. Hedrick,[11] J. B. Lewis,[11] Carolyn R. Mobley,[11] and F. C. Magne[9]
University of Arizona, Tucson[7]
J. Polym. Sci., Part A, 2(12): 5047-5056. December 1964

1890 PREPARATION AND POLYMERIZATION OF VINYL ESTERS OF NONHYDROXY CARNUBA WAX ACIDS AND ACRYLIC ESTERS OF CARNUBA WAX ALCOHOLS
C. S. Marvel,[10] J. H. Griffith,[10] J. L. Comp,[10] J. C. Cowan, and J. L. O'Donnell
J. Polym. Sci., Part A, 3(8): 2877-2883. August 1965

138-C * HOMOPOLYMERIZATION OF HYDRONOPYL VINYL ETHER AND 2-HYDRONOPOXY-ETHYL VINYL ETHER
C. S. Marvel, R. A. Malzahn, and J. L. Comp
University of Arizona, Tucson[7]
J. Polym. Sci., Part A, 3(3): 961-969. March 1965

139-C * SOME LOW MOLECULAR WEIGHT POLYMERS OF *d*-LIMONENE AND RELATED TERPENES OBTAINED BY ZIEGLER-TYPE CATALYSTS
Mario Modena, R. B. Bates, and C. S. Marvel
University of Arizona, Tucson[7]
J. Polym. Sci., Part A, 3(3): 949-960. March 1965

158-C TERPOLYMERS OF ETHYLENE AND PROPYLENE WITH *d*-LIMONENE AND β-PINENE
Ralph W. Magin, C. S. Marvel, and Edward F. Johnson
University of Arizona, Tucson[7]
J. Polym. Sci., Part A, 3(11): 3815-3823. November 1965

151-C PREPARATION AND POLYMERIZATION OF VINYL ESTERS OF CHLORO- AND HYDROXYSTEARIC AND EICOSANOIC ACIDS
C. S. Marvel, J. H. Griffith, J. L. Comp, T. H. Applewhite,[12] and L. A. Goldblatt[12]
University of Arizona, Tucson[7]
J. Polym. Sci., Part A, 3(8): 2991-3001. August 1965

---

[11]Naval Stores, U.S. Department of Agriculture, Olustee, Fla.

[12]Western Regional Research Laboratory, Agricultural Research Service, U.S. Department of Agriculture, Albany, Calif.

155-C POLYMERIZATION STUDIES WITH VINYL ESTERS OF ACIDS DERIVED FROM AGRICULTURAL PRODUCTS
C. S. Marvel and J. H. Griffith
University of Arizona, Tucson[7]
J. Agr. Food Chem. 13(5): 402-405. September-October 1965

156-C POLYMERIZATION OF VINYL ESTERS OF CYCLIC ACIDS
J. H. Griffith, J. L. Comp, and C. S. Marvel
University of Arizona, Tucson[7]
J. Polym. Sci., Part A, 3(10): 3659-3661. October 1965

170-C PREPARATION AND POLYMERIZATION OF SOME VINYL ESTER AMIDES OF PINIC ACID
J. H. Griffith, C. S. Marvel, G. W. Hedrick,[11] and Frank Magne[9]
University of Arizona, Tucson[7]
J. Polym. Sci., Part A-1, 4(8): 1993-2002. August 1966

2269 ALKYL VINYL ESTERS OF BRASSYLIC (TRIDECANEDIOIC) ACID
Shu-Pei Chang, Thomas K. Miwa, and Ivan A. Wolff
J. Polym. Sci., Part A-1, 5(10): 2547-2556. October 1967

2464 A SIMPLE EFFICIENT LIQUID-LIQUID ATOMISATION APPARATUS FOR POLYMER PURIFICATION
T. K. Miwa
Chem. Ind. (London) (52): 1835-1836. December 1968

2276 SYNTHESIS OF VINYL *THREO*-9,10-*THREO*-12,13-TETRAHYDROXYSTEARATES
John L. O'Donnell, L. E. Gast, J. C. Cowan, W. J. DeJarlais, and G. E. McManis
J. Amer. Oil Chem. Soc. 44(11): 652-655. November 1967

219-C COPOLYMERIZATION OF ETHYLENE AND UNSATURATED FATTY ACID AND GUM NAVAL STORES COMPOUNDS
C. J. Vetter, Jr.
U.S. Industrial Chemicals Co., Tuscola, Ill.[7]
Aust. Chem. Eng. 9(4): 3-12. April 1968

2504 REACTIVITY RATIOS FOR COPOLYMERIZATION OF VINYL CHLORIDE WITH 2-METHYLPENTYL VINYL BRASSYLATE BY COMPUTERIZED LINEARIZATION
Shu-Pei Chang, Thomas K. Miwa, and William H. Tallent
J. Polym. Sci., Part A-1, 7(2): 471-477. February 1969

Adducts and Plasticizers

1323 VEGETABLE OIL ADDUCTS. USE AS PLASTICIZERS FOR NITRILE RUBBERS
[W. R. Miller]
U.S. Agr. Res. Serv., CA-N-19, 3 pp. January 1962
[Processed]

1423 TETRACYANOETHYLENE ADDUCT OF *TRANS,TRANS*-9,11-OCTADECADIENOIC ACID
W. R. Miller and J. C. Cowan
J. Amer. Oil Chem. Soc. 39(8): 380. August 1962

1543 DIMETHYL MALEATE ADDUCTS OF VEGETABLE OILS AS PLASTICIZERS FOR NITRILE RUBBERS
W. R. Miller, E. W. Bell, and H. M. Teeter
Rubber Age 93(4): 575-578. July 1963

1679 BRASSYLIC ACID ESTERS AS PLASTICIZERS FOR POLY(VINYL CHLORIDE)
H. J. Nieschlag, J. W. Hagemann, I. A. Wolff, W. E. Palm,[13] and L. P. Witnauer[13]
Ind. Eng. Chem. Prod. Res. Develop. 3(2): 146-149. June 1964

1867 NITROSYL CHLORIDE ADDUCT OF METHYL OLEATE
W. R. Miller, E. H. Pryde, J. C. Cowan, and H. M. Teeter
J. Amer. Oil Chem. Soc. 42(8): 713-716. August 1965

1942 AZELAALDEHYDIC ACID ESTER-ACETAL DERIVATIVES AS PLASTICIZERS FOR POLY(VINYL CHLORIDE)
E. H. Pryde, D. J. Moore, J. C. Cowan, W. E. Palm,[13] and L. P. Witnauer[13]
Polym. Eng. Sci. 6(1): 60-65. January 1966

2192 MIXED ESTERS OF BRASSYLIC ACID AS PLASTICIZERS FOR POLY(VINYL CHLORIDE)
H. J. Nieschlag, W. H. Tallent, I. A. Wolff, W. E. Palm,[13] and L. P. Witnauer[13]
Polym. Eng. Sci. 7(1): 51-54. January 1967

2203 ACETOXYLATION OF METHYL OLEATE WITH A RESIN CATALYST
L. T. Black and R. E. Beal
J. Amer. Oil Chem. Soc. 44(5): 310-312. May 1967

2267 DIESTER PLASTICIZERS FROM MIXED CRAMBE DIBASIC ACIDS
H. J. Nieschlag, W. H. Tallent, I. A. Wolff, W. E. Palm,[13] and L. P. Witnauer[13]
Ind. Eng. Chem. Prod. Res. Develop. 6(4): 201-204. December 1967

2320 PREPARATION AND EVALUATION OF SURFACE-ACTIVE BRASSYLIC ACID-ETHYLENE OXIDE ADDUCTS
Thomas K. Miwa, Richard V. Madrigal, William H. Tallent, and Ivan A. Wolff
J. Amer. Oil Chem. Soc. 45(3): 159-164. March 1968

2347 1,2-CYCLOADDITION OF HALOALKENES TO CONJUGATED FATTY ESTERS
E. W. Bell, J. P. Friedrich, L. E. Gast, and J. C. Cowan
J. Amer. Oil Chem. Soc. 45(5): 388-392. May 1968

---

[13]Eastern Regional Research Laboratory, Agricultural Research Service, U.S. Department of Agriculture, Philadelphia, Pa.

2511 A SIMPLE SAFETY DEVICE FOR UNATTENDED LABORATORY HEATING
W. J. DeJarlais
J. Chem. Educ. 46(5): 286. May 1969

2527 SIMPLIFIED PREPARATION OF A DIESTER PLASTICIZER FROM CRAMBE SEED OIL
H. J. Nieschlag, W. H. Tallent, and I. A. Wolff
Ind. Eng. Chem. Prod. Res. Develop. 8(2): 216. June 1969

2532 PREPARATION AND PLASTICIZING CHARACTERISTICS OF SOME *N,N*-DISUBSTITUTED AMIDES OF ERUCIC AND CRAMBE ACIDS
R. R. Mod,[9] F. C. Magne,[9] Evald L. Skau,[9] H. J. Nieschlag, W. H. Tallent, and I. A. Wolff
Ind. Eng. Chem. Prod. Res. Develop. 8(2): 176-182. June 1969

2563 OLEFIN-TETRACYANOETHYLENE OXIDE ADDUCTS AND SOME OF THEIR DERIVATIVES
M. O. Bagby, C. R. Smith, Jr., and I. A. Wolff
J. Org. Chem. 34(9): 2732-2735. September 1969

Emulsion Paints and Related Studies

1402 LINSEED OIL EMULSION PAINTS HAVING INCREASED STABILITY TO DRIERS AND PIGMENTS
W. L. Kubie, J. A. Stolp, A. W. Schwab, H. M. Teeter, and J. C. Cowan
Off. Dig. Fed. Soc. Paint Technol. 34(450): 693-703. July 1962

1509 EMULSIFIERS DERIVED FROM LINSEED OIL AND THEIR POTENTIAL USE IN COATINGS
W. L. Kubie, J. L. O'Donnell, H. M. Teeter, and J. C. Cowan
J. Amer. Oil Chem. Soc. 40(3): 105-107. March 1963

1514 POLYOXYETHYLENE ETHERS OF SOME POLYOL GLYCOSIDES AND THEIR FATTY ESTERS
F. H. Otey, C. L. Mehltretter, and C. E. Rist
J. Amer. Oil Chem. Soc. 40(2): 76-78. February 1963

1549 COMPOSITION OF METHYL ESTERS FROM HEAT-BODIED LINSEED OILS
L. E. Gast, Wilma J. Schneider, C. A. Forest, and J. C. Cowan
J. Amer. Oil Chem. Soc. 40(7): 287-289. July 1963

109-C * SHAPE OF A FLUID DROP AT A LIQUID-LIQUID INTERFACE
H. M. Princen
University of Southern California, Los Angeles[7]
J. Colloid Sci. 18(2): 178-195. February 1963

106-C * AN ULTRACENTRIFUGAL METHOD FOR THE QUANTITATIVE DETERMINATION OF EMULSION STABILITY
Robert D. Vold and Robert C. Groot
University of Southern California, Los Angeles[7]
J. Phys. Chem. 66(10): 1969-1975. October 1962

111-C * PARAMETERS OF EMULSION STABILITY
Robert D. Vold and Robert C. Groot
University of Southern California, Los Angeles[7]
J. Soc. Cosmet. Chem. 14(5): 233-244. May 1963

120-C THE EFFECT OF ELECTROLYTES ON THE ULTRACENTRIFUGAL STABILITY OF EMULSIONS
Robert D. Vold and Robert C. Groot
University of Southern California, Los Angeles[7]
J. Colloid Sci. 19(4): 384-398. April 1964

133-C * THE EFFECT OF VARYING CENTRIFUGAL FIELD AND INTERFACIAL AREA ON THE ULTRACENTRIFUGAL STABILITY OF EMULSIONS
Robert D. Vold and Robert C. Groot
University of Southern California, Los Angeles[7]
J. Phys. Chem. 68(12): 3477-3484. December 1964

190-C THE ULTRACENTRIFUGATION OF EMULSIONS WITH DIFFERENT PHASE VOLUMES OF EMULSIFIED OIL
R. C. Groot[14] and R. D. Vold
University of Southern California, Los Angeles[7]
Proc. Int. Congr. Surface Active Subst., 4th, Brussels, 1964, Sec. B, II: 1233-1242. 1967

1848 COINCIDENCE CORRECTIONS FOR PARTICLE SIZE DETERMINATIONS WITH THE COULTER COUNTER
L. H. Princen and W. F. Kwolek[15]
Rev. Sci. Instrum. 36(5): 646-653. May 1965

2040 CALIBRATION, COINCIDENCE CORRECTION, AND INTERPRETATION OF COULTER COUNTER DATA
L. H. Princen
Proc. 5th Coulter Counter Conf., San Francisco, Calif., October 21-22, 1965, pp. 94-100. August 1966

2079 IMPROVED DETERMINATION OF CALIBRATION AND COINCIDENCE CORRECTION CONSTANTS FOR COULTER COUNTERS
L. H. Princen
Rev. Sci. Instrum. 37(10): 1416-1418. October 1966

2099 COLOR STABILITY OF FILMS FROM CONVENTIONAL AND EMULSION PAINTS CONTAINING LINSEED OIL
George E. McManis, L. E. Gast, and John C. Cowan
J. Paint Technol. 38(503): 740-745. December 1966

---

[14]Van't Hoff Laboratory, University of Utrecht, Utrecht, The Netherlands.

[15]Biometrical Services, Agricultural Research Service, U.S. Department of Agriculture, Peoria, Ill.

2166 EMULSIFICATION OF LINSEED OIL. I. EFFECTS OF OIL VISCOSITY, TEMPERATURE, TIME OF AGITATION, AND AGE OF EMULSIONS ON PARTICLE SIZE DISTRIBUTION
L. H. Princen, J. A. Stolp, and W. F. Kwolek[15]
J. Paint Technol. 39(507): 182-187. April 1967

2167 EMULSIFICATION OF LINSEED OIL. II. FITTING THE TRUNCATED LOG NORMAL DISTRIBUTION WITH COINCIDENCE CORRECTIONS TO COULTER COUNTER DATA
W. F. Kwolek,[15] L. H. Princen, and R. L. Greenspun[16]
J. Paint Technol. 39(507): 188-190. April 1967

2251 CATIONIC LINSEED OIL EMULSION PAINTS
L. H. Princen and J. A. Stolp
J. Paint Technol. 39(513): 616-620. October 1967

2326 * NEW LINSEED OIL EMULSION COATINGS SHOW PROMISE
J. C. Cowan and L. H. Princen
Proc. 37th Annual Flax Inst. U.S., Fargo, N. Dak., pp. 44-46. November 16-17, 1967

187-C * FUNGISTATIC PROTECTION FOR OIL AND LATEX BASED PAINTS IS ENHANCED BY CERTAIN MERCURY DERIVATIVES OF LINSEED OIL
A. E. Rheineck, S. N. Koley, and J. L. Parsons
North Dakota State University, Fargo[7]
Paint Varn. Prod. 57(11): 34-39. November 1967

2443 IMPROVED STABILITY AND FILM PROPERTIES OF EMULSION COATINGS THROUGH REVERSED ENCAPSULATION
L. H. Princen, J. A. Stolp, and R. Zgol
J. Colloid Interface Sci. 28(3-4): 466-474. November-December 1968

2602 PARTICLE SIZE ANALYSIS OF COATINGS MATERIALS WITH THE COULTER COUNTER
L. H. Princen
Appl. Polym. Symp. (10): 159-176. 1969

1387 THE INTERACTION BETWEEN ZINC OXIDE AND TITANIUM DIOXIDE IN WATER
L. H. Princen and Marilyn J. DeVena
J. Amer. Oil Chem. Soc. 39(3): 269-272. May 1962

107-C REACTIONS BETWEEN ZINC CHLORIDE AND SURFACTANT SOLUTIONS
Robert D. Vold and Hakam Singh
University of Southern California, Los Angeles[7]
J. Amer. Oil Chem. Soc. 39(10): 424-430. October 1962

1517 REACTIVITY OF ZINC OXIDE AND TITANIUM DIOXIDE IN THE PRESENCE OF DISPERSING AGENTS
L. H. Princen and Marilyn J. DeVena
J. Amer. Oil Chem. Soc. 40(4): 131-135. April 1963

---

[16]Biometrical Services, Agricultural Research Service, U.S. Department of Agriculture, Beltsville, Md.

1681 EFFECT OF ELECTROLYTES ON THE INTERACTION BETWEEN ZINC OXIDE AND TITANIUM DIOXIDE
L. H. Princen
Off. Dig. Fed. Soc. Paint Technol. 36(473): 648-663. June 1964

1760 EFFECT OF PARTICLE SIZE ON THE MUTUAL FLOCCULATION BETWEEN ZINC OXIDE AND TITANIUM DIOXIDE
L. H. Princen and Marilyn DeVena-Peplinski
J. Colloid Sci. 19(9): 786-797. December 1964

57-F INFRA-RED SPECTRA OF POLAR MOLECULES ADSORBED ON TITANIUM DIOXIDE PIGMENTS
Ieuan T. Smith
Paint Research Station, Teddington, Middlesex, England[2]
Nature (London) 201(4914): 67-68. January 1964

1844 PIGMENT INTERACTIONS IN AQUEOUS MEDIA
L. H. Princen
Off. Dig. Fed. Soc. Paint Technol. 37(485): 766-781. July 1965

2307 EFFECT OF SOME PIGMENTS ON TENSILE AND SWELLING PROPERTIES OF LINSEED OIL FILMS
R. L. Eissler and L.H. Princen
J. Paint Technol. 40(518): 105-111. March 1968

Coatings, Films, and Related Studies

1930 PREPARATION OF LINSEED ACID CHLORIDES
E. J. Dufek, L. E. Gast, and W. J. DeJarlais
J. Amer. Oil Chem. Soc. 42(12): 1060-1062. December 1965

1931 PREPARATION OF SOME LINSEED ESTERS OF METHYL α-D-GLUCOPYRANOSIDE USING THE METHOXYCARBONYL BLOCKING GROUP
E. J. Dufek and W. J. DeJarlais
J. Amer. Oil Chem. Soc. 42(12): 1104-1110. December 1965

2366 FREE RADICAL ADDITION OF HYDROGEN SULFIDE AND THIOLS TO LINSEED OIL AND METHYL OLEATE
A. W. Schwab, L. E. Gast, and J. C. Cowan
J. Amer. Oil Chem. Soc. 45(6): 461-464. June 1968

2395 NOVEL SUBSTRATES FOR PREPARING FREE FILMS FROM PAINTS OR POLYMERS
R. L. Eissler
J. Appl. Polym. Sci. 12(8): 1983-1984. August 1968

2552 POLYESTERAMIDES FROM LINSEED AND SOYBEAN OILS FOR PROTECTIVE COATINGS: DIISOCYANATE-MODIFIED POLYMERS
L. E. Gast, Wilma J. Schneider, G. E. McManis, and J. C. Cowan
J. Amer. Oil Chem. Soc. 46(7): 360-364. July 1969

2580 COMPUTER PROGRAM TO CONVERT SPECTROREFLECTOMETRIC DATA INTO COLOR DESIGNATIONS
George E. McManis and Lyle E. Gast
J. Paint Technol. 41(537): 581-582. October 1969

2613 * LINSEED OIL COATINGS CONTINUE TO SHOW PROMISE
J. C. Cowan
Proc. 38th Annual Flax Inst. U.S., Minnespolis, Minn., November 21-22, 1968, pp. 36-38. 1969

202-C * NEW COATINGS BASED ON DRYING OIL ALDEHYDES AND HYDROXYL BEARING RESINS
P. R. Sampath and A. E. Rheineck
North Dakota State University, Fargo[7]
J. Paint Technol. 41(528): 17-24. January 1969

215-C URETHANE COATINGS BASED ON ALDEHYDE OILS
A. E. Rheineck and P. R. Lakshmanan
North Dakota State University, Fargo[7]
J. Amer. Oil Chem. Soc. 46(9): 452-454. September 1969

216-C REACTION OF ALDEHYDE OILS WITH A RESINOUS POLYOL, STYRENE-ALLYL ALCOHOL COPOLYMER
A. E. Rheineck and P. R. Lakshmanan
North Dakota State University, Fargo[7]
J. Amer. Oil Chem. Soc. 46(9): 455-458. September 1969

217-C * PRODUCTION OF VINYLIC UNSATURATION BY PARTIAL DEHYDROBROMINATION OF VICINAL DIBROMO FATTY DERIVATIVES
A. E. Rheineck and B. Sreenivasan
North Dakota State University, Fargo[7]
J. Amer. Oil Chem. Soc. 46(9): 464-468. September 1969

Concrete Treatment

1629 LINSEED OIL. COMPOSITIONS FOR CURING CONCRETE
[W. L. Kubie]
U.S. Agr. Res. Serv., CA-71-26, 4 pp. February 1964 [Processed]

140-C LINSEED OIL AS A CURING COMPOUND FOR CONCRETE
Charles H. Scholer and Cecil H. Best
Kansas State University, Manhattan[7]
Highway Res. News 43(16): 70-71. December 1964

153-C CONCRETE CURING AND SURFACE PROTECTION WITH LINSEED OIL
Charles H. Scholer and Cecil H. Best
Kansas State University, Manhattan[7]
Kansas Eng. Exp. Station, Special Rpt. 60, 22 pp. July 1965 [Processed]

2152 LINSEED OIL EMULSIONS FOR PROTECTING CONCRETE
W. L. Kubie and J. C. Cowan
J. Amer. Oil Chem. Soc. 44(3): 194-196. March 1967

2363 PRELIMINARY REPORT ON SKID RESISTANCE OF LINSEED OIL-COATED CONCRETE
W. L. Kubie, L. E. Gast, and J. C. Cowan
In Surface Properties of Pavements and Vehicle Interaction, Highway Res. Rec. No. 214, pp. 42-49. Washington, D.C. 1968

2435 A "CURE" FOR CONCRETE SOOTHES MOTORIST TOO
John C. Cowan
U.S. Dept. Agr. Yearbook 1968, pp. 161-165. 1968

2469 LINSEED OIL FOR THE PREVENTIVE MAINTENANCE OF CONCRETE
W. L. Kubie, L. E. Gast, and J. C. Cowan
In Maintenance Practices 1967, Highway Res. Rec. No. 254, pp. 61-67. Washington, D.C. 1968

Patents

[These patents are assigned to the Secretary of Agriculture. Printed copies of patents may be obtained only by purchase (50 cents each) from the Commissioner of Patents, U.S. Patent Office, Washington, D.C. 20231. Order by number, do not send stamps. Use your zip code.]

Unsaturated Fatty Acids and Isomers

METHOD OF PREPARING A DRYING OIL AND INTERMEDIATE THEREFOR
Cecil R. Smith, Jr., Curtis A. Glass, and Ivan A. Wolff
U.S. Patent 3,027,388. March 27, 1962

PREPARATION OF POLYUNSATURATED FATTY ACIDS
Robert E. Beal
U.S. Patent 3,052,699. September 4, 1962

METHOD OF PREPARING 14-HYDROXY-*CIS*-11-EICOSENOIC ACID AND ESTER DERIVATIVES THEREOF
Cecil R. Smith, Jr., Marvin O. Bagby, and Ivan A. Wolff
U.S. Patent 3,057,893. October 9, 1962

PROCESS FOR PRODUCING UNDECANEDIOIC ACID FROM PLANT SOURCES
Kenneth L. Mikolajczak
U.S. Patent 3,217,046. November 9, 1965

ALKALI ISOMERIZATION OF CREPENYNIC ACID TO 8,10,12-OCTADECATRIENOIC ACID
Marvin O. Bagby and Kenneth L. Mikolajczak
U.S. Patent 3,356,699. December 5, 1967

CONJUGATION OF VEGETABLE OILS VIA IRON TRICARBONYL COMPLEX
Edwin N. Frankel
U.S. Patent 3,373,175. March 12, 1968

CONJUGATION OF VEGETABLE OILS VIA IRON TRICARBONYL COMPLEX AND DECOMPOSITION THEREOF BY CARBON MONOXIDE
Edwin N. Frankel
U.S. Patent 3,392,177. July 9, 1968

Cyclic Fatty Acids and Derivatives

LINOLENATE-DERIVED CYCLIC MONOMER FRACTION
Charles R. Scholfield, John C. Cowan, and John P. Friedrich
U.S. Patent 3,041,360. June 26, 1962

LINOLENATE-DERIVED CYCLIC MONOMER FRACTION
Charles R. Scholfield, John C. Cowan, and John P. Friedrich
U.S. Patent 3,119,850. January 28, 1964

NONSTICKY ALUMINUM-CONTAINING ANTIPERSPIRANT
Fred C. Theile and Peter Sgaramella
U.S. Patent 3,287,223. November 22, 1966

TETRAMETHYL CYCLOBUTANEDIOL DIESTERS OF LINSEED-DERIVED C_{18} SATURATED VICINALLY SUBSTITUTED CYCLIC MONOCARBOXYLIC ACID ISOMER MIXTURE
John P. Friedrich
U.S. Patent 3,373,176. March 12, 1968

COSMETIC COMPOSITIONS CONTAINING CYCLIC C_{18} AND C_{20} ALCOHOLS
Edward W. Bell and John C. Cowan
U.S. Patent 3,383,284. May 14, 1968

PRODUCTION OF C_{18} CYCLIC ACIDS IN AQUEOUS SOLVENT
Robert E. Beal and Roger A. Eisenhauer
U.S. Patent 3,419,586. December 31, 1968

Aldehydes, Aldehyde Oils, and Derivatives

UNSATURATED ALDEHYDE OILS AND METHOD FOR PREPARING THE SAME
Everett H. Pryde and Donald E. Anders
U.S. Patent 3,112,329. November 26, 1963

GLYCEROL DERIVATIVES OF AZELAALDEHYDIC ACID AND POLY(ESTER-ACETALS) THEREFROM
William R. Miller, John C. Cowan, and Everett H. Pryde
U.S. Patent 3,285,880. November 15, 1966

GLYCEROL DERIVATIVES OF AZELAALDEHYDIC ACID AND POLY(ESTER-ACETALS) THEREFROM
William R. Miller, John C. Cowan, and Everett H. Pryde
U.S. Patent 3,287,326. November 22, 1966

PROCESS FOR OBTAINING PURE METHYL AZELAALDEHYDATE FROM OZONOLYSIS OF COMMERCIAL METHYL OLEATE
William R. Miller and Danny Joe Moore
U.S. Patent 3,322,798. May 30, 1967

SOLVENT FOR OBTAINING VERY HIGH YIELDS OF ALDEHYDIC PRODUCTS FROM SOYBEAN OIL
Danny Joe Moore
U.S. Patent 3,349,106. October 24, 1967

Polyesters,Polyamides, and Other Condensation Polymers

POLYURETHANE FOAMS USING ESTERIFIED DIMER ACIDS
Thomas E. Yeates and Charles M. Thierfelder
U.S. Patent 3,173,887. March 16, 1965

CROSS-LINKED POLY(ESTER-ACETALS)
Everett H. Pryde
U.S. Patent 3,183,215. May 11, 1965

CROSSLINKED POLY- AND INTERPOLY(AMIDE-ACETALS)
Everett H. Pryde
U.S. Patent 3,223,683. December 14, 1965

THERMALLY STABLE STATIONARY PHASES FOR TEMPERATURE PROGRAMMED GAS CHROMATOGRAPHY
Verle L. Davison, Everett H. Pryde, and Danny J. Moore
U.S. Patent 3,485,028. December 23, 1969

Vinyl and Other Addition Polymers

METHOD OF PREPARING AN AIR-DRYING CONJUGATED SOYBEAN VINYL ETHER AND ISOBUTYL VINYL ETHER COPOLYMER
Gus C. Mustakas
U.S. Patent 3,085,079. April 9, 1963

COATING COMPOSITIONS COMPRISING POLYMERS OF VINYL ETHERS OF POLYUNSATURATED FATTY ALCOHOLS
Edward J. Dufek, Lyle E. Gast, Howard M. Teeter, Gus C. Mustakas, and John C. Cowan
U.S. Patent 3,179,717. April 20, 1965

Adducts and Plasticizers

DERIVATIVES OF METHYL 9,9-DIMETHOXYNONANOATE
Everett H. Pryde, John C. Cowan, and Danny Joe Moore
U.S. Patent 3,330,840. July 11, 1967

PIGMENT DISPERSANTS COMPRISING PHOSPHONIC ACID DIELS-ALDER ADDUCTS OF VEGETABLE OIL MATERIALS
Raymond Noel Faulkner and Nirmal Sen
U.S. Patent 3,354,104. November 21, 1967

Emulsion Paints and Related Studies

FAST SURFACE-DRY OIL EMULSION PAINT
Arthur W. Schwab and Howard M. Teeter
U.S. Patent 3,047,413. July 31, 1962

LINSEED OIL EMULSION COMPOSITIONS COMPRISING DIPICOLINATE AND LINSEED OIL-DERIVED EMULSIFIERS
William L. Kubie
U.S. Patent 3,140,191. July 7, 1964

COMPOSITIONS FOR INCREASING THE DISPERSION STABILITY OF TITANIUM DIOXIDE PIGMENT
Raymond Noel Faulkner and Edwin Enfield Berry
U.S. Patent 3,343,974. September 26, 1967

Coatings, Films, and Related Studies

FILM-FORMING ORGANOMETALLIC DERIVATIVES OF FATTY ACIDS
Raymond Noel Faulkner and Leonard Alfred O'Neill
U.S. Patent 3,258,475. June 28, 1966

POLYHYDRIC PHENOL-MODIFIED FATTY MEDIA AND IRON SURFACES CHELATED THEREWITH
Raymond Noel Faulkner and Leonard Alfred O'Neill
U.S. Patent 3,304,276. February 14, 1967

IRON BUTOXIDE IMPROVED POLYHYDRIC PHENOL MODIFIED ALKYD COMPOSITIONS
Raymond Noel Faulkner and Leonard Alfred O'Neill
U.S. Patent 3,321,320. May 23, 1967

DIISOCYANATE MODIFIED VEGETABLE OIL HYDROXYL-TERMINATED POLYESTERAMIDE COATINGS
Lyle E. Gast and Wilma J. Schneider
U.S. Patent 3,485,779. December 23, 1969

Concrete Treatment

SINGLE APPLICATION LINSEED OIL-IN-WATER EMULSIONS FOR CURING AND/OR PREVENTING SPALLING OF CONCRETE
William L. Kubie, Sr.
U.S. Patent 3,228,777. January 11, 1966

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